

ABSTRACT

A pulsed, Q-switched, waveguide CO<sub>2</sub> laser includes a plurality of waveguide channels formed in a block of a beryllium oxide ceramic material and is operated at a wavelength between about 9.2 and 9.7 micrometers. The laser has an output power up to  
5 55% greater than that of a similarly configured laser, operated at the same wavelength and pulse conditions, but wherein the waveguide channels are formed in a block of an alumina ceramic material.